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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/051,307

DATE: 05/02/2002

TIME: 15:52:27

Input Set : A:\59440141.app
 Output Set: N:\CRF3\05022002\J051307.raw

3 <110> APPLICANT: DAI, ZIYU
 4 SHI, LIFANG
 5 HOOKER, BRIAN S.
 7 <120> TITLE OF INVENTION: GENE PROMOTERS ISOLATED FROM POTATO AND USE THEREOF
 9 <130> FILE REFERENCE: 059440/0141
 11 <140> CURRENT APPLICATION NUMBER: 10/051,307
 12 <141> CURRENT FILING DATE: 2002-01-22
 14 <150> PRIOR APPLICATION NUMBER: 60/263,224
 15 <151> PRIOR FILING DATE: 2001-01-23
 17 <160> NUMBER OF SEQ ID NOS: 14
 19 <170> SOFTWARE: PatentIn Ver. 2.1
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 1595
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Solanum tuberosum
 26 <400> SEQUENCE: 1
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 28 aaaaatttggaa aaagaacgta ggaccacatg gaccttgggt gcaacaatat tgttgtcctc 120
 29 caaatgtggt acaaggattt ttacatcctc cgggtacttt aagttgacca gggcatttcac 180
 30 catttatatt tgcgtgcatt tgaattgtgt ggcatttccc tccacttggta ttatgtcgaaaa 240
 31 cgaaagtcat cggtatattt aatccatcaa ctaaagaaat gtcccagaaa tctaagttgt 300
 32 tgaactggtc caaggcgtac tcggcttaggg tggtttgggt tttgccccac cgggtgcact 360
 33 gcaggacacc accacaatca ccagtcatgc acgaacctct accagcacca tcgaagttac 420
 34 atccagtagc accccatata cctgccccatcg tagtgccttcc aggcgcatac atgaccacaca 480
 35 ttggccccc atcgaaacgt cggcacccgc tttcggggtc gatggccccc aaacgatgt 540
 36 tggacagttt ttgcgtaccc cgatagtggc agcataagt aaagtccaaa aagcaagaag 600
 37 ggagaaaaca aaagaagatc tcaagtagcc catgtttgtt gaaattttata tgtggacaaa 660
 38 ttatttttgg tactttat atagggatat ggcggctttt ggcactacgg atattaatcg 720
 39 tattatatacg caatatcata ctttgactaa ttataaacga aatataattac aatatgattt 780
 40 ggttaaacgtt gaggtggaaa aatgtataag agccgcctaa taattatattt ttttatgaat 840
 41 atagccataa gttacaagtt aacttttattt ggtgataact ttgacatata aactctgtaa 900
 42 cgtgacggaa tttttcttaa aactaaatata taaaagcag ctatttcag attttcgtg 960
 43 gccaaagttt cttgcataact tatctatgcc cattttact tttatgttc tagccttctaa 1020
 44 ggtacacgtt tgaacataaa aaatcataaa aattgaaaatg aaaaatttagt tttttttttt 1080
 45 catattactc gttagggatca ttgtttagat caatctgaaa tatacaaacc attctgattt 1140
 46 taaaatcaca accattctgc caaggggaag tctatgtgat cctgtacaag tggtttgatt 1200
 47 attcttagtc tagattggag tcacaacttt tagtgcataat atcttattaa agaaccctta 1260
 48 ttgatgcaaa tatcttattaa aagaaccctt attcatgctt tattttttt tacgatcgaa 1320
 49 gcatggatat attactaat taaaataat tggaaatgatgacca gtcataa 1380
 50 ttatcgatca tccacattaa aataacgtt gatggctgc ttttagagaa acaagtggat 1440
 51 catgtataat ttatgtttaa aatatctcctt ataaatatctt atatataccct ctaaaactaa 1500
 52 atgcatctaa caacacaaat ataaacttag attctttaaa gaaattgcag aattaaatgg 1560
 53 aggcaataa gtctatggtg aagttgggtt ctttc 1595

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110 cccagacggc gtatggacag ttgttgcgt a cctcgatgt ggcagcataa gtgaaagtca 540
 111 caaaaagcaag aagggagaaa acaaaaagaag atctcaagta gcccattttt gtgaaattt 600
 112 atatgtggac aaatttattt tggtaactt a tatatagggat tatggcggct ttggcacta 660
 113 tggatattaa tcgtattata taacaatatac atactttgac taattataaa caaataatata 720
 114 tacaataatga tttggtaaac gttgagggtgg caaaaatgtat aagagccccc taataattaa 780
 115 ttatTTTATG aatatacgact atagttacaa gtgaacttta tttggtgata acttggacat 840
 116 ataaactctg tatcgacg gaactttct taaaactaaa tattaaaag cagctatTTT 900
 117 aatattttc gtggccaaag tttcttgcat acttatactat gcccattttt acttttatcg 960
 118 ttcttagcctt ctaggtacgc gtttgaacat aaaaaatcat aaaaattgaa agtaaaaatt 1020
 119 agttttttt catattactc gtatggatca tttgttagat caatgtgaaa tatacaatc 1080
 120 attctgattt taaaatcata actattctgc atgatgggaa cgtctatggt gattcgtgac 1140
 121 aagtgttga ttatTTCTAA gtctggattt gaggcacaac ttttagtgca aatatactt 1200
 W--> 122 aaaaagaaccc ctatTTGATG caaaaagtcaa taaaatattt aatatacatnct ttatTTTATTt 1260
 123 ttacgatcg agcatggata catttactaa taaaataaa ttggaaaggaa ttgatcgaca 1320
 124 agtcatcaag cttatcgtcg atccacatcc ccctaacgtt agtatggctg ctttagaga 1380
 125 aacaagtggta tcatgtataa tttagTTTTC ccctatctcc tataaaatatac tatataacc 1440
 126 tctaaaacta aatgcatac acaacacaaa taaaactta gattctttaa agaaatttgca 1500
 127 gaattaaatg gaggcataa agtctatggt gaagttgggt gctttc 1546
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 131 <211> LENGTH: 1175
 132 <212> TYPE: DNA
 133 <213> ORGANISM: Solanum tuberosum
 135 <400> SEQUENCE: 4
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 137 tcaatTTTAT aagaattttac agtctgcact ctggagacat ttttatttca taatgtataa 120
 138 ttgcgttaatt ggggaaagtga agtttcttga ggcgcTTTc tagtggTTT aacttcattt 180
 139 tggctatca tagtacttgg ttttgcgtt aggttaagatt ttattgacgt atatggaaa 240
 140 ttccTTgttaa gagctgacac ggttaaactgg acctaaatata tttttagaaact atgcaccacc 300
 141 ctttcaaggg gaggttaagt ttttttttt ttttgggtg ttggggaaag acaaaaaatg 360
 142 tttttaaaca cttatttataa ggccaaaaag tataaaaataa aactaaaagc taaaagtgg 420
 143 gtatGCCGA cttatgattt ttaacttttta gcttataagc tacttaaga aagccatcc 480
 144 aaacgacctg ttcttaggtg taagattttt aagactaagc aaatttattt tcatgaaaca 540
 145 acattgtttt tggtagcgtatgcattt agtctttat gttcttattt atctggTTT 600
 146 gtaggctgtt ttccatgca aatgtattcc agcagctagc agtttacagg agcatatagt 660
 147 taaatcaaca ccggcaagat atagtagtac acaggcatgt ttggaaaaat gaccattttct 720
 148 ggaactgtataaaaagggt aattttctgt tttactttctt gaccactgga tcttttttt 780
 149 tgcattccctt gtttagggac agtcttgcgtt aaatgacatg gcatttcttcc atgagtacta 840
 150 ctcgtcatat gtggaaataa ttgcactat ttgcataaa agcgtataaa gaattttact 900
 151 aaaacaatgt atctccactt ttgcagggttc aagggtcatg atatgttggc acccttca 960
 152 gctgggtggc aaagtactga tggatgtttt ttaattatag agaagtctga gtttagattt 1020
 153 atgtctactt ttgcgtgtca acttaagaga agtttataa tctttcgta tcaactttt 1080
 154 catTTGACA tagggatccc acgttatataa catgcacagg aggaagtatc ttgataactct 1140
 155 agctgggttg tggcacaag cactaggggg gaacg 1175
 158 <210> SEQ ID NO: 5
 159 <211> LENGTH: 1188
 160 <212> TYPE: DNA
 161 <213> ORGANISM: Solanum tuberosum
 163 <400> SEQUENCE: 5
 164 actatagggc acgcgtggc gacggccctg gctggctga tttaggagta tttcattcaa 60

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165 tcaattttat aagaattttac agtctgcact ctggagacac tcttatttca taatgtata 120
 166 ttgcgttaatt gggaaagtga ggtttcttga ggcgttttc tagtgtttt aacttcattt 180
 167 tgtgtatca tagttacttg ttttctgtta aggttaagatt ttattgacgt atatggaaa 240
 168 ttcccttgtaa gagctgacac ggttaaactgg acctaaataa atttagaact atgcaccacc 300
 169 cctttaagga tggttggatc gtcttatttt aagtagttt gaacttttaa gcatttttt 360
 170 tttttggag gtgtttggaa aagacaaaaa atgttttaa acacttattta ttaggc当地 420
 171 aagtataaaaa ataaaactaaa agctaaaagt tgggtatgcc cgacttataa ttttaactt 480
 172 ttagcttaca agtactttaa agaaagccaa tctaaacgc ttgttcttag gtgttaagatt 540
 173 ttgaagacta agcaaaatttc ttccatgaa acaacattgt ttttcttag cgatatgcca 600
 174 ttaagtcgtt tatgttctaa ttaatctgg tttttaggtt ggttccatg caaaacgtat 660
 175 tccagcagtt agcagtttac aggagcatat agttaatca acacccgcoa gatatactg 720
 176 tacacaggca tggttggaaa atgacatttc tggaaactgt aataaaagggt aatttctgtt 780
 177 ttactttcctt accactggat ctctttttt gcatttcctt tttatggaca gtcattgcta 840
 178 aatgacatgg catttattca tggattttac tcgtcatatg tggaaatatac ttcaactt 900
 179 tgacataaaaa gtcgcacgtt caagcgttaa aagaatttttta cttttttttt gatatccac 960
 180 ttttgcagggtt tcaagggtca tgatgttgc gcacccttca ctgttgggtt gcaaaagtact 1020
 181 gatgtggatc cttaattttt agagaagtctt gagtttagt ttatgttctac ttttctgtc 1080
 182 taacttaaga gaagtttata tatctttcgat gataacttt tacatttcga catagggatc 1140
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 188 <212> TYPE: DNA
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 191 <400> SEQUENCE: 6
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 193 aagttgggtt ctttcttgat aatttttgc tcatgtttc aatctctcac tgctcaagat 120
 194 ttggaaatcg aagttagtga tggcttaat gtcttgcac tacatgtatgt gtctcagtca 180
 195 ttttgcagggtt gtgtgacgaa agaaagggtt ccagaacttc tagggacacc agctaagttt 240
 196 gcaaagcaaa taattcagaa ggaaaatcca aaattaacaa atgttgcac tctactgaat 300
 197 gttctgtttt ttacagaaga tttgagatgc aatagatgtt gtctttttgt taatttattt 360
 198 gacatttttgc tacaacttcc caaagggtt taaacaaaat taattcatgt tatatatatg 420
 199 tatcttagcctt ccagaaaaat aaattggatgt tggatatgg ttaatgttcc cactatattt 480
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 204 <211> LENGTH: 2035
 205 <212> TYPE: DNA
 206 <213> ORGANISM: Solanum tuberosum
 208 <400> SEQUENCE: 7
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 211 tggaaatcg attccagcag ttagcattt acaggagcat atagttaaat caacaccggc 180
 212 aagatataatgtt agtacacagg catgtttggaa aaatgcattt tctggaaactg ataataaagg 240
 213 gttcaagggtt catgatatgtt tggcaccctt cactgttggg tggcaaaagta ctgtatgtgg 300
 214 tcctttaattt atagagaagt ctgagggtt ccacgtatat gacatgcac ggagaaggtt 360
 215 tcttgcattt ctatgttgc ttttgcac agcactaggg gggaaacggc ctcccttgc 420
 216 tggatgttgc actaagcaat taaacacattt ggcatttttac catttcattt ggaaccgtac 480
 217 aacaaaaaccc tctttggatc ttgcgaagggaa gcttctggat atgttactg caaagaaaaat 540
 218 ggcaaaaagct ttttccatca atagtgatc agaagccat gatacccgagg tggatgttgc 600
 219 ttggattttt aacaatgttgc ttggaaaggcc aaacaaaaag aaatttataatg ctgcagcaaa 660

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220 agcatatcat ggttcaactc ttatttctgc cagtctcaact ggtttcctg cattacatca 720
 221 aaattttgat cttcctgctc catttgcatt tcacaccgac tgcctcattt attggcgtta 780
 222 tcatctgcca ggtgagacag aggaggagtt ctctaccaga ttggctaaaa atttggaaaga 840
 223 tcttattcctc aaagaggggc ctgaaacaat agctgcttc attgctgaac cagtcatggg 900
 224 ggcaggaggt gtcatacctc ctccagctac ctattttgat aagattcaag ctgttagtcaa 960
 225 gaaatatgac attctttca ttgcggatga ggtgatctgt gcctttggga ggcttggaaac 1020
 226 aatgtttggc tctgacatgt ataacatcaa acctgatctt gtctccttag caaaggctct 1080
 227 ttcttctgca tataatgcca ttggagctgt cctgttaagc cctgaagttt ctgatgtaat 1140
 228 tcattctcaa agcaataaac ttgggttcctt ttccatgga ttcaatttattt ctgggcattcc 1200
 229 tggcgtatgc ggggtggcat tggaaagctat taaaatctac aaggagcgaa atatggttga 1260
 230 gagagtaaat acaatatccc caaagttca agaaggctgt aaggagttt ctgacagtcc 1320
 231 cattatcgaa gagatttaggg gaattgggtt gatccttgc acagagttt cgaataacaa 1380
 232 atctcctaattt gatccttcc ctccatgaaat ggggtttgggt gcatattttt gggcacaatg 1440
 233 tcagaagaat ggcatgttgg tacgtgtgc tggtgataacc atcatgatgt ctccctccatt 1500
 234 tgttagttact ccagaagaac ttgacgagtt gattagcatc tatggaaaag cattgaggga 1560
 235 aactgaaaaag agagtagaaag aactcaagtc tcagaagtga tattagttga cagcacaagc 1620
 236 ttgacgatga cggaaaaaaac aaaaacaat tcaagcaca 1680
 237 tggatataat tctgttaatg tccagaatga agtaatgagt ataatttttta gtccaaatgg 1740
 238 ctcccttctt cttaatccat acatgcagta tagtttaccat agttcaattt ttatgtaaaga 1800
 239 tggatataatccc cttaaccatg tggatccaa gattaatgca ttttaccaaa aaatcgaatt 1860
 240 tattaaatcta tggatccatg attaattttag ttttttttattt gttcgagttt gtacgttaat 1920
 241 gcacatttctt cctataaaatg cttttctgtc aataatattt tcttaaaatg aatcatgttg 1980
 242 tatttggat tcaataaaaa atgaatgctc gccaaacaaa aaaaaaaaaaaa aaaaa 2035
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 246 <211> LENGTH: 22
 247 <212> TYPE: DNA
 248 <213> ORGANISM: Artificial Sequence
 250 <220> FEATURE:
 251 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
 253 <400> SEQUENCE: 8
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 257 <210> SEQ ID NO: 9
 258 <211> LENGTH: 19
 259 <212> TYPE: DNA
 260 <213> ORGANISM: Artificial Sequence
 262 <220> FEATURE:
 263 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
 265 <400> SEQUENCE: 9
 266 actatagggc acgcgtgg 19
 269 <210> SEQ ID NO: 10
 270 <211> LENGTH: 26
 271 <212> TYPE: DNA
 272 <213> ORGANISM: Artificial Sequence
 274 <220> FEATURE:
 275 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
 277 <400> SEQUENCE: 10
 278 gaaagcaacc aacttcacca tagact 26
 281 <210> SEQ ID NO: 11
 282 <211> LENGTH: 38

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Please Note:

Please Note: Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 1248

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L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:1200